AVOX Systems ™

ZODIAC

MATERIAL SAFETY DATA SHEET

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

Product Name: **Oxygen Generator, Chemical**
Aviox Single-Pak & Duo-Pak Units

Revision: 18 April, 2008

Product Part Number:

802093-01
802111 - 00, 06
802501 - 13, 15, 16, 19
802512 - 15
802502 - 10, 15, 16, 23

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Telephone 716-683-5100

CHEMTREC Emergency Telephone Numbers:

United States: 800-424-9300
International: 703-527-3887 (collect)

SECTION 2 - INFORMATION ON INGREDIENTS

Contents of GENERATOR	CAS #	WGT. %	EXPOSURE LIMITS as of 2007
Sodium Chlorate	7775-09-9	less than 90	none (oxidizer)
Barium Peroxide	1304-29-6	less than 7	ACGIH TLV 0.5mg/m3 OSHA, PEL 0.5 mg/m3
Potassium Perchlorate	7778-74-7	less than 2	none (oxidizer)
Iron Powder	7439-89-6	less than 7	none, see iron oxide
Silicon Dioxide	14808-60-7	less than 5	ACGIH TLV 0.01mg/m3 OSHA, PEL 10 mg/m3
Titanium Dioxide	13463-67-7	less than 3	ACGIH TLV 10mg/m3 total TWA 5 mg/m3 respirable dust OSHA, PEL 15 mg/m3 5 mg/m3 respirable dust
Mica	12001-26-2	less than 2	ACGIH TLV 3 mg/m3 total TWA OSHA, PEL 20 mppcf
Magnesium Oxide	1309-48-4	less than 0.2	OSHA, PEL 5 mg/m3 respirable dust 15 mg/m3 dust ACGIH TLV 10 mg/m3 fume
Talc	14807-96-6	less than 0.2	ACGIH TLV 2 mg/m3 total TWA OSHA, PEL 20 mppcf
Iron Oxide	1309-37-1	less than 0.1	ACGIH TLV 5 mg/m3 fume as Fe OSHA, PEL 10 mg/m3 fume

Listed as IARC Carcinogen: silicon dioxide
Listed as NTP Carcinogen: silicon dioxide, talc
OSHA Carcinogen: none

SECTION 3 - HAZARD IDENTIFICATION

Eye Contact: Generator contents can burn, cause eye irritation and redness.

Skin Contact: Sodium chlorate is irritating to skin. May cause rash.

Ingestion: Generator contents could cause vomiting, abdominal pain, and possible liver and kidney damage. Both barium and sodium chlorate are toxic if ingested. Reported lethal doses of sodium chlorate are 2 grams for children and 15 - 30 grams for adults.

Inhalation: Dust from generator contents may cause irritation to the mucous membranes, throat and nose. Could also cause lung damage and is a possible carcinogen

SECTION 4 - FIRST AID MEASURES

Eye Contact: In the event of contact with the generator contents, flush eyes with a directed stream of water for at least 15 minutes. Forcibly hold eyelids apart to ensure complete irrigation of all eye and lid tissue. Get medical attention if irritation occurs.

Skin Contact: In the event of contact with the generator contents, wash affected area with soap and water. Get medical attention if irritation occurs.

Inhalation: In the event of contact with the generator contents, avoid breathing excessive dust. Remove to fresh air at once. If not breathing give artificial respiration and call emergency responders.

Ingestion: Contact physician immediately.

SECTION 5 - FIRE FIGHTING MEASURES

Flash Point:	not applicable	Flash Point Method:	not applicable
Flammable Limits:	not applicable	Autoignition Temperature:	not applicable

Unusual Fire & Explosion Hazards: Generators contain oxidizers. Oxidizers generate their own oxygen as they burn and therefore cannot be extinguished by means other than water. Do not use CO2 or dry extinguishers as they are ineffective and may create a worse situation. Contact between the generator contents and other materials may cause fire.

Special Firefighting Procedures: Avoid bodily contact. Wear self contained breathing apparatus and wear appropriate protective equipment. Keep material from exposure to high heat by using water to cool containers.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Steps To Be Taken In Case Material Is Released Or Spilled: Loose chemicals and components should be carefully placed into a dry metal container. Vacuuming or wet sweep may be used to avoid dust dispersal. Be sure to wear appropriate PPE while conducting clean up. If an amount spills that is too large for local clean up, call HAZMAT responders immediately.

SECTION 7 - HANDLING AND STORAGE

Storage Temperature & Pressure: Store the generators in a well ventilated, dry area at normal ambient temperature and pressure.

General: Do not store in wet or moist environments. Keep generators in manufacturer's original packaging when not in use. Practice good housekeeping techniques.

SECTION 8 - EXPOSURE CONTROL / PERSONAL PROTECTION

Personal Protection: When handling the contents of the generator, impervious gloves, a NIOSH approved air purifying filter respirator, safety glasses/goggles and protective clothing should be worn.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance: A compressed, gray, chemical core enclosed within a metal canister.

Vapor Pressure:	not applicable	Vapor Density:	not applicable
Specific Gravity:	varies	Evaporation Rate:	not applicable
Odor:	none	Solubility in Water:	appreciable

SECTION 10 - STABILITY AND REACTIVITY

Conditions To Avoid: Avoid storing generators with chemicals, acids, ignition sources and combustible materials. Avoid opening the generator housing. Avoid mixing or contaminating the contents of the generator with other chemicals, including acids, and combustible materials. Keep contents of generator away from sources of friction and ignition sources.

Incompatibility: The contents of the generator are incompatible with oils, organic chemicals, acids and metals including aluminum.

Hazardous Decomposition Products: Can include chlorine and chlorine dioxide.

Hazardous Polymerization: Will not occur.

Stability: Stable

SECTION 11 - TOXICOLOGICAL PROPERTIES

No data available.

SECTION 12 - ECOLOGICAL INFORMATION

No data available.

SECTION 13 - DISPOSAL CONSIDERATIONS

Generators must be spent prior to disposal. Due to barium within the generator it is considered a hazardous waste even after it is spent. The spent generator must be disposed of in accordance with all Federal, State and local regulations.

SECTION 14 - TRANSPORTATION INFORMATION

DOT Shipping Name:	Oxygen Generator, Chemical
DOT Hazard Class:	5.1
DOT Number:	UN 3356
Packing Group:	II

Notice: Special Shipping restrictions apply. Refer to United States Code of Federal Regulations (CFR 49) or other applicable government regulations. Government approval, exemptions or permits may be required.

SECTION 15 - REGULATORY INFORMATION

This device is a chemical oxygen generator and is classified as an "Article" as defined in 29 CFR 1910.1200 (b) (6) (v) - 1 July 1995. Therefore, this device does not require a Material Safety Data Sheet. However, for Federal procurement, a MSDS is required per Federal Standard No. 313C (GSA Federal Supply Service).

SECTION 16 - OTHER INFORMATION

The information contained herein is, to the best of our knowledge and belief, accurate. However, AVOX Systems Inc. assumes no liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist. It is the responsibility of the user to comply with all applicable Federal, State, and Local laws and regulations.